

#### **ECDC FRAMEWORK DOCUMENT**

# ECDC framework for prevention of communicable diseases and related special health issues

May 2024

## **Executive summary**

This document outlines the objectives and main elements of the ECDC framework for prevention of communicable diseases and related special health issues. It sets out a vision for strong, effective and evidence-based prevention of communicable disease in the European Union/European Economic Area (EU/EEA).

Prevention has been central to ECDC's mission and function since the Agency was established in 2005, and today most of its areas of work include prevention activities. These activities have used a range of models and methods, with a focus on primary and secondary prevention. Traditionally however, infectious disease prevention and control has been dominated by medical epidemiology and microbiology. Since ECDC's mandate was amended in 2022, its role in prevention of communicable diseases has been reinforced and expanded to incorporate new areas:

'(...) the Centre shall develop a framework for the prevention of communicable diseases and related special health issues, including socio-economic risk factors, vaccine preventable diseases, antimicrobial resistance, health promotion, health education, health literacy and behaviour change.'

Strengthening the prevention of infectious diseases, especially after the COVID-19 emergency, requires a paradigm shift and enhancement of previous strategies. The new ECDC Prevention Framework therefore reframes and broadens the traditional approach to infectious disease prevention by leveraging social and behavioural sciences, health promotion, health literacy and health education, and by providing an extra focus on socio-economic risk factors.

The Prevention Framework will initially prioritise vaccine-preventable diseases and antimicrobial resistance as its main focus areas, with other priority areas potentially being added later. In accordance with the guiding principles of public health enshrining respect for human rights, the framework will also focus on the values of gender equality, equity and inclusion (including for ethnic minorities and socially vulnerable populations), universal health coverage, and community engagement in public health response.

In order to support the implementation of the Framework and facilitate exchange of knowledge, skills and experience in the area of prevention in the EU/EEA, a Prevention Community of Practice will be established.

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<sup>&</sup>lt;sup>1</sup> Regulation (EU) 2022/2370 of the European Parliament and of The Council of 23 November 2022 amending Regulation (EC) No 851/2004 establishing a European centre for disease prevention and control. Available from: <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L">https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L</a> .2022.314.01.0001.01.ENG&toc=OJ%3AL%3A2022%3A314%3ATOC

## **Target audience**

The target audience for this document is public health policy-makers and experts in the EU/EEA Member States, and the European Commission.

# **Background**

#### The amended ECDC mandate calls for the development of a 'Prevention Framework'

The amended ECDC mandate calls on the Centre to develop a specific framework on prevention (a 'Prevention Framework'). More specifically, it states: 'In close collaboration with Member States, the European Medicines Agency (EMA) and other relevant Union bodies and agencies, as well as with international organisations, the Centre shall develop a framework for the prevention of communicable diseases and related special health issues, including socio-economic risk factors, vaccine preventable diseases, antimicrobial resistance, health promotion, health education, health literacy and behaviour change'.<sup>1</sup>

In addition to the Prevention Framework, the expanded mission and the tasks set out in the amended mandate mention prevention in several other areas (see Annex 1). For example, ECDC is to establish a system to reinforce and monitor (evaluate) national healthcare system structures and capacity to prevent communicable diseases; issue recommendations and guidelines to Member States to reinforce their national prevention and control programmes for communicable diseases; provide evidence-based communication messages to the public on communicable diseases and threats and on the relevant prevention and control measures; and strengthen Member State capacity and capability to identify and implement prevention and control activities for populations at risk. In summary, the extended mandate highlights a number of prevention issues for inclusion in the official tasks of the Centre (Article 2) and the Prevention Framework is just one of these.

This document is part of a series of similar ECDC framework documents covering key cross-cutting areas of the Centre's work.

#### **Enhancing prevention at ECDC**

Within the context of the ECDC Prevention Framework, the 'prevention' of communicable diseases is defined as specific interventions to avoid outbreaks or limit increases in disease incidence or consequences, thereby minimising the burden of communicable diseases. To date prevention at ECDC has focused mainly on primary, secondary and quaternary prevention (among the five generally recognised categories of prevention, namely primordial, primary, secondary, tertiary, and quaternary prevention – see Annex 2 for definitions).

ECDC's amended mandate identifies vaccine-preventable diseases (primary prevention) and antimicrobial resistance (largely quaternary prevention) as the priority focus areas for the Prevention Framework. Secondary prevention (to treat asymptomatic disease) and tertiary prevention (to treat symptomatic disease) will also be featured, with both playing a treatment-as-prevention role in areas such as HIV/AIDS and tuberculosis.

Alongside these established priorities, future prevention strategies will also take a more fundamental approach to delivering health security by adopting a 'One-Health' perspective, including the prevention of risks at source by prioritising upstream prevention actions that address root causes, and investing in preparedness interventions. By fostering collaboration across sectors, mandates and borders, the 'One-Health' approach enables identification of areas where preventive measures can be implemented. Enhanced interoperability and coordination across sectors facilitates both the prevention and control of communicable diseases. There is evidence that applying such an approach can reduce the incidence and societal costs of disease outbreaks and other health threats, or even prevent their emergence.

To ensure and support enhanced prevention of infectious diseases, the domains of health promotion, health education and health literacy will increasingly be included in prevention strategies (Annex 4). Social and economic risk factors will be acknowledged and addressed. In addition, prevention will be informed by a systematic effort to understand and influence positive health-related behaviour. This is a complex field that relates to understanding the factors affecting behaviour and integrating these insights into strategic efforts to promote, enable, support and guide positive health-related behaviour.

The COVID-19 pandemic demonstrated that a purely biomedical model of prevention can limit public understanding of the necessary preventive measures, which can lead to sub-optimal adherence. The Prevention Framework will therefore include the additional perspective of social and behavioural sciences, which will provide a basis for enhancing public understanding of and adherence to preventive measures.

The COVID-19 pandemic also highlighted that health communication alone is insufficient as a means of bringing about behaviour change. It is also crucial to acknowledge and to address the challenges posed to the information ecosystems of individuals and communities, such as infodemics and misinformation, and to better understand how these can affect health behaviour and health outcomes.

Within the context of the Prevention Framework, prevention should be distinguished from other public health functions covered by ECDC that are affected by the extended mandate in terms of their prevention components, such as communicable disease surveillance, preparedness, and control<sup>2</sup>.

#### **Prevention activities at ECDC**

Prevention of communicable diseases has always been central to ECDC's function, and prevention-related activities have been conducted since the Centre was established<sup>3</sup>. These activities have grown organically and have used a range of models and methods. In 2021, ECDC prevention activities were mapped internally, based on an analysis of scientific advice and quidance published by the Centre. Among the numerous documents on prevention, this mapping exercise found major differences in the quantity of advice produced for ECDC's 12 disease groups. Similarly, there were large variations in the level (from primordial to quaternary prevention, see Annex 2) and nature of prevention activities addressed. There is a predominance of ECDC publications focusing on primary and secondary prevention, with little attention given to primordial (i.e. upstream work focusing on determinants of disease) or tertiary (i.e. largely treatment-based) prevention activities. Antimicrobial resistance (AMR) was the only area where quaternary prevention has been addressed. The main reason for this seems to be the restrictions imposed by the focus of ECDC's initial mandate. The three disease groups with the most documented prevention work, at least in terms of the number of published documents, are vaccine-preventable diseases, HIV/sexuallytransmitted infections (STI)/viral hepatitis, and COVID-19. Although the mapping exercise focused on scientific advice, prevention activities are also addressed by other areas of the Centre's work, such as risk communication and infodemic management. In most areas of prevention, including vaccine-preventable diseases and antimicrobial resistance/healthcare associated infections, ECDC has collaborated and will collaborate with international partners, such as the World Health Organization (WHO).

A priority for ECDC has been providing support to Member States in implementing the Sustainable Development Goals (SDG) in the EU. ECDC has extensive experience in prevention of SDG-related diseases, such as HIV<sup>4</sup>, tuberculosis<sup>5</sup> and hepatitis<sup>6</sup>, including through work with multiple stakeholders and representatives from key population groups, applying social and behavioural science methodologies, and assessing upstream determinants<sup>7</sup> of health and addressing specific risk factors.

In 2021, at its Third Joint Strategy Meeting (JSM)<sup>8</sup>, ECDC asked Member State representatives about the added value of the Centre's work on prevention at EU level. The JSM suggested that ECDC should continue providing capacity-building opportunities and guidance in disease prevention, establish a community of practice to facilitate the sharing of prevention practice and experiences across countries, and provide a strong evidence base for preventive guidance development by improving the guality and comparability of data across EU.

However, as indicated by several experts, any expansion in ambition and workload will require additional financial and human resources in the Member States. It is also important for ECDC to strengthen its cooperation in prevention work with other EU institutions and international organisations, as well as to explore the possibility of collaborating further with civil society and other actors.

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<sup>&</sup>lt;sup>2</sup> Related concepts: control of communicable diseases can be defined as a reactive response to outbreaks and spread of disease; preparedness can be defined as actions adopted to increase the capacity and the capabilities to anticipate, respond to and recover from the impact of one or more events.

<sup>&</sup>lt;sup>3</sup> Examples of ECDC outputs in this area include: <a href="https://www.ecdc.europa.eu/en/publications-data/quidance-brief-prevention-and-control-infectious-diseases-among-people-who-inject, https://www.ecdc.europa.eu/en/publications-data/monkeypox-infection-prevention-and-control-guidance-primary-and-acute-care, https://www.ecdc.europa.eu/en/publications-data/operational-public-health-considerations-prevention-and-control-infectious</a>

<sup>&</sup>lt;sup>4</sup> Relevant ECDC outputs on HIV. <a href="https://www.ecdc.europa.eu/en/infectious-disease-topics/z-disease-list/hiv-infection-and-aids/prevention-and-control/monitoring-0">https://www.ecdc.europa.eu/en/infectious-disease-topics/z-disease-list/hiv-infection-and-aids/prevention-and-control/monitoring-0</a>

<sup>&</sup>lt;sup>5</sup> Relevant ECDC outputs on tuberculosis. <a href="https://www.ecdc.europa.eu/en/publications-data/tuberculosis-surveillance-and-monitoring-europe-2022-2020-data">https://www.ecdc.europa.eu/en/publications-data/tuberculosis-surveillance-and-monitoring-europe-2022-2020-data</a>

<sup>&</sup>lt;sup>6</sup> Relevant ECDC outputs on hepatitis. <a href="https://www.ecdc.europa.eu/en/publications-data/monitoring-responses-hepatitis-b-and-c-epidemics-eueea-countries-2020-data">https://www.ecdc.europa.eu/en/publications-data/monitoring-responses-hepatitis-b-and-c-epidemics-eueea-countries-2020-data</a>

<sup>&</sup>lt;sup>7</sup> Examples are environmental, cultural, social determinants, etc.

<sup>&</sup>lt;sup>8</sup> The Joint Strategy Meeting (JSM) is attended by members of ECDC's Management Board, Advisory Forum and Competent Body Directors and Coordinators.

#### **Vision**

The vision for the ECDC Prevention Framework is the attainment of strong, effective and evidence-based prevention of communicable disease in the EU/EEA. In addition to applying expertise in epidemiology and microbiology, this will be achieved by leveraging social and behavioural sciences, health promotion, health literacy, health education, behaviour change, and taking into account socio-economic risk factors (Annex 3).

#### **Common principles of the ECDC Prevention Framework**

The ECDC Prevention Framework will be based on the following common principles:

- Clear prioritisation. The extended mandate of ECDC specifically mentions vaccine-preventable diseases and antimicrobial resistance as two disease areas/special health issues to be addressed in the Prevention Framework. Further priorities can be defined using the relative burden of disease of the different disease groups (e.g. estimated using the ECDC Burden of Communicable Disease in Europe (BCoDE) toolkit)<sup>9</sup>. On this basis, disease areas with a higher burden, and those where there is potential for a greater impact in reducing the burden of disease, will be prioritised. Additional long-term prioritisation can be based on the findings of ECDC's Foresight Project. Considerations relevant to which disease areas to prioritise include the impact of environmental and climate change on communicable diseases in the EU; decreasing confidence in vaccines; threats to health system capacity; long term impacts of the Russian aggression in Ukraine; migration; population ageing; economic recession and its impact on health policy and health systems, and evolving disparities across groups in socio-demographic and socio-economic risk factors. Health economic analyses could be used to provide further evidence for prioritisation of preventive interventions.
- Social and behavioural sciences, including both quantitative and qualitative data, will be embedded within
  health promotion, health education, health literacy and behaviour change activities as a means of optimising
  their impact on prevention. Similarly, these sciences will be used to consider social and economic risk
  factors and advocate for evidence-based health policies.
- The perspectives, needs and concerns of both target populations and service providers will be considered in prevention strategies and activities, following the guiding principles of public health, such as respect for human rights, universal health coverage, gender equality, equity and inclusion (including for ethnic minorities and socially vulnerable populations) and community engagement in public health response.

### **Objectives**

### 1. Develop a plan for strengthening prevention

Initially, a plan will be developed at a general level and then complemented by tailored plans in specific disease/special health issue domains, in collaboration with ECDC Disease Network Coordinating Committees (DNCCs) and disease-specific networks.

The general plan will provide a supporting structure for the enhancement/integration/addition of social and behavioural dimensions to prevention activities. This will include a concept note outlining and defining the concepts of socio-economic risk factors, health promotion, health education, health literacy and behaviour change.

The tailored plans for specific disease areas (starting with vaccine-preventable diseases and antimicrobial resistance) will explore the needs and potential for enhancement using the concepts mentioned above. The need for training and capacity-building activities will also be explored in collaboration with disease networks and Member State representatives, to support the development of these capacities in EU/EEA Member States.

These plans will be included in ECDC's annual work planning and will take into account available resources, both in the Centre and in the Member States.

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<sup>&</sup>lt;sup>9</sup> ECDC Burden of Communicable Disease in Europe (BCoDE) toolkit. Available from: <a href="https://www.ecdc.europa.eu/en/publications-data/toolkit-application-calculate-dalys">https://www.ecdc.europa.eu/en/publications-data/toolkit-application-calculate-dalys</a>

#### 2. Facilitate exchange of knowledge, skills and experience

To facilitate the implementation of this Framework, based on a mapping of prevention actors in the EU/EEA (2024), a Community of Practice will be developed for prevention. Agreed terms of reference and a digital platform will enable members to connect, share questions and challenges, and support one another in finding solutions to the issues they face in their work. The intention is to link people with similar experiences, expertise and needs, thereby allowing for capacity building and training, as well as the sharing of good practices and the exchange of lessons learned in social and behavioural science for the prevention of communicable diseases. The Community of Practice online platform will also include a curated, 'living' knowledge base, accessed through a 'good practice portal'. In addition to a programme of interactive online activities (e.g. webinars, thematic discussions, etc.) this will include resources for the members, with details of good practices in communicable disease prevention.

Through the continuous capacity building and good practice exchange facilitated by the Community of Practice, the Prevention Framework will also facilitate enhanced epidemic and pandemic preparedness and response.

Research plays a pivotal role in developing evidence-based prevention strategies. A link to the research community will be essential for building foresight, broadening ECDC's knowledge base and supporting policy making. It will also ensure that innovative technologies and solutions are incorporated into prevention.

Activities for the prevention of non-communicable diseases in the Member States are often undertaken from a comprehensive, multi-sectoral perspective. There is a need to learn from non-communicable disease prevention efforts and identify initiatives that could be adapted to communicable disease prevention, and this will be taken into account in the work of the Prevention Framework.

Opportunities for the exchange of knowledge will also be further facilitated, for example during the ESCAIDE conferences, where sessions on prevention are proposed.

#### 3. Foster collaboration with external partners and stakeholders

Optimising the effectiveness of the Prevention Framework will require development and implementation of a plan for strengthening collaboration with external partners and international stakeholders on issues related to the prevention of communicable diseases. Existing ties will be strengthened with EU agencies, international organisations, civil society organisations and other relevant actors in European public health in the areas of social and behavioural science and infodemic management, and new ties will be established with these stakeholders in the areas of health promotion and health literacy.

Within ECDC, collaboration and, potentially, harmonisation with and between different units and sections, will be strengthened to leverage synergies and avoid duplication of disease prevention-related work.

# Annex 1. Summary of the topic of prevention in legislative/policy proposals in ECDC's amended mandate

The extended mandate mentions prevention in several areas. Throughout the legislative text, the legislator wishes for ECDC to explicitly include prevention as one of the official tasks of the Centre (Article 2), which is an important evolution compared to Regulation (EC) No 851/2004. ECDC is further requested to consider expanding its work to include the following:

- Develop a framework for the prevention of communicable diseases which addresses the disciplines and disease areas presented in Article 5a(2) (health promotion, health education, health literacy, socioeconomic risk factors and behaviour change).
- Monitor and assess national health systems structure and capacity and identify population groups at risk and in need of targeted prevention and response measures.
- Enhance prevention, preparedness and response planning activities in the Union, by broadening the Centre's operation of dedicated networks and networking activities to reflect the scope of Regulation (EU) 2022/ 2371.
- Include prevention in risk assessments, analysis of epidemiological information, preparedness and response planning and epidemiological modelling, anticipation and forecasting.
- Contribute to the evaluation and monitoring of communicable disease prevention and control programmes in order to provide the evidence for science-based recommendations to strengthen and improve these programmes at national and EU level.
- Identify population groups at risk and in need of targeted prevention and response measures, and support Member States in ensuring that these measures also target persons with disabilities.
- Provide guidelines for the creation of communicable disease prevention and control programmes. The
  Centre shall evaluate and monitor such programmes to provide evidence for science-based
  recommendations for the purposes of coordinating, strengthening and improving these programmes at
  national level.

# **Annex 2. Categories of prevention**

Prevention Level	Definition
Primordial prevention	The term is usually applied to addressing common risk factors and upstream determinants of infectious diseases such as climate, environmental, social-behavioural, and healthcare systems, for example through Healthy Public Policy (a core pillar of health promotion).
Primary prevention	Methods to avoid occurrence of disease either through, for example, immunisation against disease or measures such as pre-exposure prophylaxis (PrEP) for HIV. Health communication and risk communication may also be considered as primary prevention.
Secondary prevention	Methods to detect and address an existing disease prior to the appearance of symptoms. Examples include screening for latent tuberculosis infection or genital chlamydia infection.
Tertiary prevention	Methods to reduce the harm of symptomatic disease through rehabilitation and treatment. Physical therapies that support the rehabilitation of children with paralytic polio are an example of tertiary prevention.
Quaternary prevention	Methods to mitigate or avoid results of unnecessary or excessive interventions in the health system. Antimicrobial stewardship may be seen as an example of quaternary prevention.

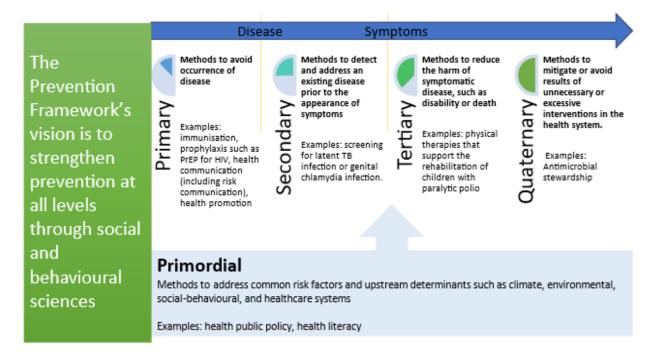
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Gillman MW. 2015. 'Primordial Prevention of Cardiovascular Disease'. Circulation. 2015;131:599–601 Etzel, R. 2016. 'Children's environmental health: The role of primordial prevention.' Current Problems in Pediatric and Adolescent Health Care. 2016 Jun;46(6):202-4

# **Annex 3. Levels of prevention in infectious disease**



Source: ECDC

# Annex 4. Definitions and summaries of concepts with ECDC plans

# Behavioural and social sciences including behaviour change

Insights from social and behavioural sciences can help inform policy and decisions in public health. Capacity for this type of activity is unevenly distributed in the EU Member States and needs strengthening in several countries. There is a need to share good practices and build capacity in this field, thereby further enhancing the ability of Member States to apply an understanding of public attitudes, behaviour and beliefs to effective disease prevention. In addition, as shown during the COVID-19 pandemic, social and behavioural sciences can play a crucial role in informing disease prevention and the implementation of non-pharmaceutical interventions and vaccination.

ECDC will develop modular, online training courses and other capacity building exercises in this area for EU/EEA countries.

# Sociodemographic and socio-economic risk factors

Communicable disease outcomes, like the majority of health outcomes, have a tendency to be stratified by sociodemographic and socio-economic factors. Living and working conditions are key determinants for these outcomes – for example, income level, educational level, occupational position/status, ethnicity or experiences of migration, sexual orientation, gender, and religious beliefs. As with any social determinant of health, these non-medical factors can profoundly influence health outcomes. They are the conditions in which people are born, grow, work, live, and age, and they comprise the wider set of forces and systems shaping the conditions of daily life. They include economic policies and systems, development agendas, social norms, social policies and political systems. Appropriate consideration of this stratification is fundamental to improving communicable disease outcomes and reducing longstanding inequities. In many cases this requires engagement with representatives of key target groups representatives in all relevant sectors (e.g. education, social services, etc.) and by leveraging the power and influence of civil society.

ECDC will further emphasise the social stratification of social risk factors and outcomes and provide a more focused attention to specified risk groups as a means of informing and improving prevention and control technical guidance and programmes.

#### **Health promotion**

Health promotion is the process of enabling and empowering people to increase control over, and to improve their health. Health promotion action aims to make the conditions and prerequisites for health favourable through scientific guidance and advocacy; targeting enabling factors or barriers, such as through the creation of supportive structures/environments; increasing access to information; advocating for healthy public policy and equitable health policy; increasing community engagement, and supporting healthy life skills<sup>10</sup>. The application of health promotion offers pathways that can unlock the transformative potential of cross-sectional action for favourable health outcomes, as well as for sustainable development. In line with the SDGs<sup>11</sup> and their 169 targets seeking 'to ensure that all human beings can fulfil their potential in dignity and equality in a healthy environment', and the 'One-Health' approach<sup>12</sup>, health promotion underlines the interlinkages across multiple sectors, as well as the importance of ensuring 'health-in-all policies'<sup>13</sup>. The practice of health promotion further highlights the need for political conditions that will facilitate decisions to be made for the benefit of humanity and the planet. These decisions will have a particular focus on the poorest and the most vulnerable while also improving the quality of life of each and every member of society, thereby advancing the well-being of society as a whole.

In this area, health promotion principles will also be used to optimise the impact of ECDC's scientific guidance. For example, where there are clear vulnerabilities or risk groups, the Centre will focus scientific guidance on the key population or the setting (migrant centres, hospitals, schools, prisons, etc.) rather than solely on the disease. For public health experts and local prevention and control actors, this will increase relevance and facilitate implementation. Involving representatives of affected communities/risk groups in the development process is key to optimising implementation by addressing potential barriers to prevention, testing, treatment in a more comprehensive manner. Promoting a 'health-in-all policies' approach with stakeholders may also be an important means of bringing about multi-sectorial and systemic change that will facilitate better prevention and control of communicable diseases.

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<sup>&</sup>lt;sup>10</sup> World Health Organization (WHO). Ottawa Charter of Health Promotion, 1986 Ottawa Charter for Health Promotion (who.int)

<sup>&</sup>lt;sup>11</sup> United Nations (UN). <u>Transforming our world: the 2030 Agenda for Sustainable Development | Department of Economic and Social Affairs (un.org)</u>

<sup>&</sup>lt;sup>12</sup> One Health: A New Professional Imperative. American Veterinary Medical Association. 15 July 2008. p.9. [Accessed 20 August 2020]

<sup>&</sup>lt;sup>13</sup> World Health Organization (WHO). Promoting health: guide to national implementation of the Shanghai Declaration (who.int). <u>Promoting health: guide to national implementation of the Shanghai Declaration (who.int)</u>

#### **Health literacy**

Health literacy refers to the ability to have access to, understand, process and use health information. A good level of health literacy enables individuals to not only take informed health decisions in everyday life concerning healthcare, disease prevention and health promotion, but also to maintain good health during the course of their life for themselves, their families and their communities. <sup>14</sup> The experience of the COVID-19 pandemic has highlighted how low health literacy levels can hinder both adherence to non-pharmaceutical interventions and vaccination acceptance and uptake. While the relationship between vaccine literacy and vaccine uptake is complex, studies have shown that health literacy and the ability to detect misinformation were positively associated with the uptake of the COVID-19 vaccine <sup>15</sup>. There is also strong evidence that vaccine literacy can help to mitigate the negative effects of exposure to misleading information on vaccination, particularly in the time-sensitive context of a health crisis.

It is increasingly important to ensure that health literacy is not regarded only as a personal resource, but also a key enabler of disease prevention at system level. Health systems should enhance their efforts to ensure that clear, accurate, adequate and accessible information is presented to diverse audiences. This should also include targeted approaches to specific groups identified as being at risk of low health literacy, as well as the preparation of materials in the languages of ethnic minorities.

As part of the Prevention Framework, ECDC will, where relevant, consider issues around health literacy in communication and the development of scientific guidance.

#### **Health education**

Health education is effective in supporting healthy behaviour and preventing unhealthy behaviour, by informing people and developing knowledge, skills and competencies on how to lead healthy lives, prevent and treat diseases, and make wise healthcare decisions. Public authorities and schools in particular can play a critical role in reducing health risks through the delivery of effective health education. School-based health education helps children and adolescents acquire functional health knowledge, while also strengthening the attitudes, beliefs, and skills needed to adopt and maintain healthy behaviour throughout their lives. Health education can be especially important during a health emergency, when there may be an overabundance of information that can lead to confusion, rumours, misconceptions and loss of trust in institutions. As witnessed during the COVID-19 pandemic, with an information overload, people often struggle to find trustworthy sources or reliable guidance. This major public health problem - known as an infodemic – affects how people think and behave and can potentially have harmful consequences, including preventable disease and death.

ECDC performs work related to health education, such as risk communication and infodemic management. As the study of infodemiology emerges, it is becoming clear that it is important to address infodemics as an element of controlling an epidemic. While infodemic management activities ensure the ongoing detection of narratives and the provision of real time insights, prevention activities in this area will need to focus on improving health literacy, health education and critical thinking as a way of strengthening the resilience of individuals and communities. Risk communication refers to the real-time exchange of information, advice and opinions between experts or officials and people who face a threat to their survival, health or economic or social well-being. The ultimate aim of risk communication is to ensure that everyone at risk is able to take informed decisions to take protective and preventive action and thereby mitigate the potential impact of a threat.

In this area, ECDC will incorporate aspects of health education and health literacy in its work with key partners and the Member States to support the advancement of knowledge, skills and a specialised workforce that is prepared to respond to communicable disease threats and risks, as well as to infodemics, in a timely, effective and coordinated manner.

<sup>15</sup> I Montagni, K Ouazzani-Touhami, A Mebarki, N Texier, S Schück, C Tzourio, the CONFINS group, Acceptance of a COVID-19 vaccine is associated with ability to detect fake news and health literacy. Journal of Public Health. 2021;43(4):695–702.

<sup>&</sup>lt;sup>14</sup> Sorensen K, Van den Broucke S, Fullam J, Doyle G, Pelikan J, Slonska Z, Brand H: Health literacy and public health: a systematic review and integration of definitions and models. BMC Public Health. 2012,12:80.